

Annual Statistical Report Fiscal 2004-2005

NOVA SCOTIA DEPARTMENT OF HEALTH ANNUAL STATISTICAL REPORT 2004 – 2005

COMPILED BY: INFORMATION ANALYSIS & REPORTING INFORMATION MANAGEMENT BRANCH For additional information on the data included in this report, please contact the Information Analysis and Reporting Section of the Department of Health at (902) 424-8291.

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The 2004 – 2005 Annual Statistical Report provides data from all District Health Authorities, informing Nova Scotians of health measures and the health care system performance in Nova Scotia. All of these facilities work together to provide the utmost quality of care to the people of Nova Scotia in accordance with the *Canada Health Act*'s tenets of portability, accessibility, universality, comprehensiveness and public administration.

In this report, various health measures, from cancer mortality and incidence rates to patient days at hospitals, will be reported. Each indicator report will include technical specifications, significance and rationale for reporting, analysis and data graphs or tables for the 2004/05 fiscal year.

Information obtained from the Canadian Community Health Survey (CCHS) will remain the same, reporting on 2002-2003. The next cycle in the CCHS will appear in next year's annual statistical report, reporting on 2004-2005.



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Section 1 Health Promotion and Population Health

Health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."⁶ Our health status is influenced by a variety of factors, called "Determinants of Health", from genetic predisposition to disease to personal health practices such as nutrition and exercise. The determinants of health are factors that have been shown to predict or influence disease later in life. The determinants of health are:

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- \circ Gender
- Culture

For instance, studies have shown that obesity plays a major role in the development of Type 2 diabetes and cardiovascular disease. We know that obesity most often results from poor nutrition or lack of physical activity. People could have poor nutrition habits for a number of reasons, including a lack of education on appropriate nutrition, or perhaps not having sufficient income or time to buy and prepare nutritious foods. By examining the characteristics of obese people in our population, we can plan effective programs and services targeted at the underlying causes of obesity such as inadequate income or inadequate nutrition education. Enacting programs and services to get at the root causes of obesity could result in reduced rates of Type 2 diabetes and cardiovascular disease in the long run.

In this section, indicators that reflect the determinants of health, called "population health indicators," are included to give us an idea of how healthy our population really is. Health promotion indicators show us the number of people using the services and programs in place that promote proactive health and disease prevention.

⁶ Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

One of the ways that we collect information on population health and health promotion indicators is through population surveys such as the Canadian Community Health Survey and the National Population Health Survey. Several of the indicators in this report are from the Canadian Community Health Survey Cycle 2.1, released in May of 2003. The Canadian Community Health Survey (CCHS) collected information from 30,000 Canadians, aged 12 to 102 years, about health conditions, health practices and lifestyle, access to health care and general information such as age, sex, income, and education. People in the military, living on Indian Reserves or living in some remote areas were not included in the Canadian Community Health Survey.

All Canadian Community Health Survey data responses are self-reported. Canadian Community Health Survey data are weighted to represent the proportion of Nova Scotia's population in each Health Zone. The Nova Scotia Department of Health has further analyzed the data to yield DHA level results. All Canadian Community Health Survey data must include a measure of variance in order to illustrate the reliability of the estimate.

Disclosures:

Small sample sizes may affect the validity of the data. Due to this, you will also want to look at confidence intervals. Information on Cl's and the analysis of these indicators are available from Annie Xu (902-424-5245) at the Department of Health.

For more information on the Canadian Community Health Survey, visit Statistics Canada Website at <u>www.statscan.ca</u>, or visit the Nova Scotia Department of Health's comprehensive publication on the Canadian Community Health Survey at <u>http://www.gov.ns.ca/health/reports.htm</u>

Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002 2003, Ottawa, Ontario.



Breastfeeding

1. The percentage of women, of those who gave birth in the last 5 years, who breastfed or tried to breastfeed their last infant.

2. The percentage of women, of those who gave birth in the past five years and breastfed their last infant (but do not anymore), by length of time breastfeeding.

Significance - Rationale and Notes for Interpretation

Measuring the prevalence of breastfeeding is one indicator of healthy choices in early childhood development. Measuring the duration of breastfeeding is another indicator of healthy choices in early childhood development.

Technical Specifications

Calculation:

1. ((The number of women aged 15 to 55 who have given birth in the last five years who breastfed or tried to breastfeed their last child even if only for a short time)/(The total number of women aged 15 to 55 who have given birth in the last 5 years) X100) for each of Nova Scotia's 9 District Health Authorities, Nova Scotia.

2. ((The number of women aged 15 to 55 who have given birth in the last five years and who breastfed up to 3 months, 3-6 months, 7-9 months, or over 9 months)/(The total number of women aged 15 to 55 who have given birth in the last 5 years) X100) for all of Nova Scotia.

Note: all duration categories are mutually exclusive.

Source: Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002-2003, Ottawa, Ontario.





% of People Physically Active in a Given Population

Definition

1. The percentage of people whose physical activity level was either active, moderate, or inactive.

2. The percentage of male and female youth (aged 12 to 19) whose physical activity level was active, moderate, or inactive.

Significance - Rationale and Notes for Interpretation

Regular sustained physical activity along with a healthy diet, maintenance of appropriate weight, avoidance of smoking, and adequate rest forms the basis of a healthy lifestyle. The links between regular and sustained physical activity and improved health for individuals has been clearly demonstrated in medical literature. Therefore, physical activity is an important indicator for estimating the general health and possible future health problems of a population.

Technical Specifications

Calculation:

 ((The number of people aged 12 years or older, who were either active, moderately active, or inactive; [based on energy expenditure of physical activity (amount and duration)]/(The total number of people aged 12 years or older)
X100) for each of Nova Scotia's nine District Health Authorities and Nova Scotia.
((The number of males and females aged 12 to 19, who were either active, moderately active, or inactive; [based on energy expenditure of physical activity (amount and duration)]/(The total number of males and females aged 12 to 19)
X100) for each of Nova Scotia's nine District Health Authorities and Nova Scotia. *Source*: Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002-2003, Ottawa, Ontario.





Regularly Drank More Than 12 Drinks a Week

Definition

The percentage of people who regularly drank more than 12 alcoholic drinks in a one-week period for the last 12 months.

Significance - Rationale and Notes for Interpretation

Alcohol consumption is common in adult Canadians. Some medical studies have suggested that regular but minimal use of certain alcoholic beverages may provide increased heart-health. Chronic heavy use has been clearly shown, however, to be detrimental to the drinker's health. Moreover, alcoholism and alcohol-related injuries and fatalities occur frequently. Measuring the regular use of alcohol gives an indication of the possibility for alcohol-related injuries and health problems. The measure does not illustrate the timing of the more than 12 drinks, for instance, all at once or some each day.

Technical Specifications

Calculation:

((The number of people who regularly drank more than 12 alcoholic drinks in a one-week period for the last 12 months)/(The total number of people aged 12 years or older who have had at least one drink in the last 12 months) X100) for each of Nova Scotia's 9 District Health Authorities, Nova Scotia, and Canada.

Source: Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002-2003, Ottawa, Ontario

^{*} Values could not be reported according to Statistics Canada guidelines.



Prevalence of Smoking by Age Group and Sex

Definition

The percentage of survey respondents who answered 'yes' when asked if they smoked. Population aged 12 and over who report being smokers.

Significance – Rationale and Notes for Interpretation

Tobacco use is the leading cause of preventable illness and death in Canada. Health Canada estimates that smoking is responsible for more than 45,000 deaths per year. This indicator represents the proportion the total population who report current smoking habits. Because of the addictive nature of nicotine, youth smoking is of particular concern. Nova Scotia aims to decrease the percentage of youth who smoke. Strategies to achieve this target include continued implementation of all components of the Comprehensive Tobacco Strategy.

This indicator is designed to assist policy makers in determining where tobacco policies should be directed. By looking at prevalence of smoking by both age and sex, it is easier to identify which populations' policies and programs should be targeted towards.

In 2003, Nova Scotia implemented a province-wide Comprehensive Tobacco Strategy. The strategy addresses seven key components: taxation, smoke-free places legislation, treatment/cessation, community-based programs, youth prevention, media awareness, and monitoring and evaluation. Through this comprehensive approach, by 2004-2005 the province hopes to decrease the provincial smoking rate to the Canadian average or less.

Technical Specifications

The data are based on the question: At the present time do you smoke cigarettes daily, occasionally or not at all?

Numerator: Weighted number of individuals aged 12+, by sex, who report smoking Denominator: Total population Calculation: (Numerator/Denominator) x 100

Source: Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002-2003, Ottawa, Ontario.



The percentage of females aged 18 and over who have had a PAP smear in the last 12 months

Significance - Rationale and Notes for Interpretation

Pap Smear Tests are used to screen for cervical cancers. These cancers, that affect a large proportion of the population, can be treated with early detection and managed quite effectively. Early and regular testing for these cancers, in the populations at risk, leads to earlier detection and better health outcomes. Measuring the percentage of females taking the tests, and the frequency of screening, provides an estimate of health services resources used and perhaps the amount of further cancer testing education that needs to be done.

Technical Specifications

Calculation:

((The number of females aged 18 and over who have had a PAP smear test within the last 12 months)/(The total number of females aged 18 and over)) X100

Source: Canadian Community Health Survey (CCHS) Cycle 2.1, Statistics Canada, 2002-2003, Ottawa, Ontario.



Percentage of Women Screened (Aged 50 to 69 Years)

This indicator measures the number of women ages 50 to 69 who have had at least one mammogram for breast cancer screening in a given fiscal year, as administered by the Nova Scotia Breast Screening Program.

Significance – Rationale and Notes for Interpretation

The goal of the Nova Scotia Breast Screening Program is to "reduce the mortality from breast cancer in Nova Scotian women aged 50-69 years of age by 30%…" Since the establishment of the NSBSP in 1991, 71,284 women have been registered in the provincial breast-screening database, and 192,422 mammograms have been done. Women aged 50 to 69 are most at risk for breast cancer, making adequate screening measures imperative for this age group. Examining and reporting the number of first time breast screenings for women aged 50-to-69 enables the NSBSP program to monitor screening promotion and use in each DHA indicating where extra resources may be needed.

Technical Specifications

Calculation: ((The total number of women ages 50-69 who have had one mammogram during the past fiscal year)/(the yearly Nova Scotia population estimate women ages 50-69)) X 100

Source: Nova Scotia Breast Screening Program database, Nova Scotia Department of Health.



Influenza Immunization Rates for Nova Scotia Residents 65+

Definition

The proportion of adults 65 years of age and older who received an influenza vaccination in the last year.

Significance – Rationale and Notes for Interpretation

The *Canadian Consensus Conference on Influenza* (1993) recommended that by the 2000/01 flu season 70% of individuals in high-risk groups (such as those aged 65+) should receive flu shots. Nova Scotia has a comprehensive strategy for promotion of flu immunizations.

Technical Specifications

Calculation: (Total number of people immunized)/(Total population (for community resident this is based on mid-year population projection from the 1996 census)) x 100

Source: Influenza Surveillance and Immunization Annual Report, 2004-2005, Office of the Chief Medical Officer of Health, Nova Scotia Department of Health.



Section 2 Disease Incidence & Chronic Health Conditions

Unlike health promotion and population health indicators, disease incidence and mortality indicators tell us how healthy our population currently is and at what rate it is experiencing and dying from disease. Incidence is a measure of the rate at which new cases of disease occur in a population previously without disease. In this section, two types of disease are examined: communicable diseases and cancers.

Often when looking at disease incidence and disease mortality rates, statisticians use a method of analysis called age standardization. Age standardization is a way of looking at the proportion of illness in a specific place and asking, "what would we expect the proportion of illness to be if this place had the same age structure as the rest of Canada?" Therefore, the rates shown do not cite the actual number of observed cases, but the numbers of expected cases in the standard population.

Using this method allows for valid comparisons across different parts of the province/country to see if health problems are actually more serious in one place than in another. Age standardized statistics must be standardized to the same population census data. Data are not comparable if, for instance, some data (for a particular variable) is standardized to 1996 population data and some is standardized to 1991 population data. In this report, 1991 Canadian population data is used.

Age-standardized cancer incidence rates measure the appearance of new cases of cancer. This incidence rate is influenced by two main groups of factors: (1) the underlying rate of cancer incidence, which reflects, in part, the prevalence of risk factors such as smoking, and, in turn, the success of primary prevention efforts, and (2) the rate of detection and diagnosis of cancers, which can be influenced by the intensity and effectiveness of cancer screening programs.

Unfortunately, from the viewpoint of interpreting this indicator, these two factors work in opposite directions. For example, an increase in measured cancer incidence could reflect either deterioration in healthy life style or an improvement in screening. However, this latter kind of "screening artifact" is unlikely to carry on for a long period so that generally, a declining incidence of cancer suggests a positive change in population health. This interpretation is being addressed by the addition of staging data to the cancer registry systems. Cancer staging provides information on how advanced (serious) the cancer is at the time of diagnosis.

As a general comment on using incidence figures, there is an increasing awareness that a successful decrease in one disease may simply lead to an increase in the incidence of some other conditions, with no net benefit. Therefore, when one cause of death or disability is replaced by another, it is important to know if there is a net increase in life span or if there is a significant gap in time between the decrease in mortality for one cause and increased mortality for another. Quality of health during the remaining years is also crucial.

Age-standardized cancer mortality rate trends may indicate long-term success in reducing deaths from these diseases. Lower death rates indicate success in cancer or cardio-vascular disease prevention, detection, and treatment. More information on cancer incidence and mortality and cancer programs can be obtained at Cancer Care Nova Scotia's website: <u>http://www.cancercare.ns.ca</u> or at the national Cancer Care Society website: <u>www.cancer.ca</u>.

Communicable diseases pass between people through bodily contact, exchange of bodily fluids or gases, or through contact with an infected agent such as food or water. Communicable diseases are often preventable and treatable. More information on communicable diseases can be obtained through the Nova Scotia Department of Health website: <u>www.gov.ns.ca</u> health or through Health Canada's website: <u>www.hc-sc.gc.ca</u>.



Female Breast Cancer Incidence Rate

The reported number of newly diagnosed primary breast cancer cases in a given year per 100,000 population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with breast cancer can provide important planning information regarding treatment and prevention programs, especially as death from chronic conditions becomes more prevalent.

Technical Specifications

Codes: Malignant neoplasm of the female breast (ICD-9 174), (ICD-10 C50) *Calculation:* The age-standardized rate for each cancer site is calculated by multiplying each observed age-specific incidence rate by the standard population in the corresponding age and sex group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)



Prostate Cancer Incidence Rate

The reported number of newly diagnosed primary prostate cancer cases in a given year per 100,000 population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with prostate cancer can provide important planning information regarding treatment and prevention programs, especially as death from chronic conditions becomes more prevalent. The risk of prostate cancer increases with age, so it is important for men over 50 to have regular prostate-specific antigen (PSA) tests.

Technical Specifications

Codes: Malignant neoplasm of the prostate (ICD-9 185) (ICD-10 C61) *Calculation:* The age-standardized rate for each cancer site is calculated by multiplying each observed age-specific incidence rate by the standard population in the corresponding age and sex group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)



Colorectal Cancer Incidence Rate

Definition

The reported number of newly diagnosed primary colorectal cancer cases in a given year per 100,000 population that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Incidence rate trends associated with colorectal cancer can provide important planning information regarding treatment and prevention programs, especially as chronic diseases become more prevalent.

Technical Specifications

Codes: Malignant neoplasm of the colon/rectum (ICD-9 153-154) (ICD-10 C18, C19, C20)

Calculation: The age-standardized rate for each cancer site is calculated by multiplying each observed age-specific incidence rate by the standard population in the corresponding age group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)



Breast Cancer Mortality Rate

The reported number of deaths of individuals where the underlying cause of death is breast cancer, per 100,000 population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Age-standardized cancer trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

Technical Specifications

Calculation: The age-standardized rate for each cancer site female breast (ICD-9 174 or ICD-10 C50), is calculated by multiplying each observed age-specific death rate by the standard population in the corresponding age-group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)



Prostate Cancer Mortality Rate

The reported number of deaths of individuals where the underlying cause of death is prostate cancer, per 100,000 population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Age-standardized cancer death rate trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

Technical Specifications

Calculation: The age-standardized rate for cancer of the prostate (ICD-9 185 or ICD-10 C61) is calculated by multiplying each observed age-specific death rate by the standard population in the corresponding age-group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)



Colorectal Cancer Mortality Rate

Definition

The reported number of deaths of individuals where the underlying cause of death is colorectal cancer, per 100,000 population, that would have occurred in the standard population if the observed age-specific rates in a given population had occurred in the standard population.

Significance – Rationale and Notes for Interpretation

Age-standardized cancer death rate trends may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

Technical Specifications

Calculation: The age-standardized rate for cancer of the colon/rectum (ICD-9 153-154 or ICD-10 C18-20) is calculated by multiplying each observed age-specific death rate by the standard population in the corresponding age group, summing the results, multiplying the sum by 100,000. The 1991 Canadian population is used as the standard population. (Non-residents of Canada are excluded from the calculation.)

Incidence and Mortality Rates for Selected Cancers for Nova Scotia by DHA - 2004

Incidence Rates

FEMALES	Age-Standardized Incidence Rate ² per 100,000									
DISTRICT HEALTH AUTHORITY	BREAST	95% Cl ³	COLORECTAL	95% CI	LUNG	95% CI	ALL SITES	95% Cl		
		[73.2				[23.2		[302.9		
South Shore Health	102.8	- 132.3]	76.6	[52.0 - 101.2]	41.9	- 60.6]	358.7	- 414.4]		
		[60.6				[27.9		[304.1		
Courth March Lie alth	89.6	-	59.6	[36.9 - 82.3]	47.7	-	361.8	-		
South West Health		118.5				67.5		419.6		
	79 1	0.cc]	56.9	[384 - 754]	50.8	[32.3	374.9	[322.0		
Annapolis Valley Health	70.1	102.41	00.0	[00.4 70.4]	00.0	69.21	074.0	427.01		
		[73.9				[23.1		[291.4		
Colchester East Hants	103.7	-	50.6	[29.9 - 71.4]	42.4	-	346.6	-		
Health Authority		133.6]				61.8]		401.7]		
Overale and an eliteral the	05.5	[50.6	447	104.0 00.01	F 4 7	[25.5	050.0	[288.2		
	85.5	- 120 51	44.7	[21.2 - 68.3]	51.7	- 77 91	358.6	420.01		
Additionity		[55 9				[11 4		[276.4		
Pictou County Health	88.1	- 100.0	49.9	[27.1 - 72.7]	29.8	-	340.6	12		
Authority		120.3]				48.2]		404.8]		
		[85.5				[17.3		[296.2		
Guysborough Antigonish	123.9	-	45.2	[22.6 - 67.8]	39.4	-	365.6	-		
Strait Health Authority		162.3				61.5		434.9		
Cape Breton District	115.0	[93.1	/3.1	[20 7 - 56 6]	55.8	[41.0	374.8	[334.0		
Health Authority	115.0	136.91	43.1	[23.7 - 30.0]	55.0	70.61	574.0	415.01		
		[89.8				[44.9		[362.1		
	103.0		55.0	[45.5 - 64.5]	54.9	-	387.9	-		
Capital Health		116.2]				64.9]		413.8]		
	405 5	[94.3			<i>i</i> a a	[44.2		[357.7		
All Nova Scotia 2004	102.4	- 110.61	53.6	[47.9 - 59.3]	49.9	- 55 51	373.3	- 299.01		
		110.0]				55.5]		[342.4		
	99.5	[98.1 -	43.1	[42.2 - 44.0]	44.3	[43.4 -	345.1	-		
Canada ³ 2001		101.0]				45.3]		347.8]		

¹ Rates are provisional.
² Rates are standardized to the age distribution of the 1991 Canadian population.
³ The 95% confidence interval (range within which a value is expected to fall with a given probability).
⁴ Age-standardized incidence rates obtained from Cancer Surveillance Online, Health Canada, Aug. 8, 2005.

Source: Cancer Care Nova Scotia

MALES	Age-Standardized Incidence Rate ² per 100,000								
DISTRICT HEALTH AUTHORITY	PROSTATE	95% Cl ³	COLORECTAL	95% CI	LUNG	95% Cl	ALL SITES	95% CI	
		[119.4 -		[77.0 -		[47.0 -		[499.2 -	
South Shore Health	157.2 192.1	195.0] [148.7 - 235.5]	109.7 89.1	142.4] [60.0 - 118 2]	72.7 87.2	98.4] [58.1 - 116 4]	572.7 576.1	646.2] [500.9 - 651.3]	
Annapolis Valley Health	110.6	[81.5 - 139.7]	83.3	[58.0 - 108.6]	68.7	[45.9 - 91.5]	499.6	[436.3 - 562.9]	
Colchester East Hants Health Authority	98.4	[68.0 - 128.8]	64.1	[39.7 - 88.5]	90.0	[60.8 - 119.2]	412.2	[349.4 - 474.9]	
Cumberland Health Authority	117.2	[72.9 - 161.4]	79.8	[43.7 - 115.8]	149.4	[99.7 - 199.0]	564.2	[465.0 - 663.3]	
Pictou County Health Authority	225.4	[169.5 - 281.2]	71.1	[40.2 - 102.0]	111.5	[72.4 - 150.5]	661.6	[564.1 - 759.1]	
Guysborough Antigonish Strait Health Authority	196.6	[145.7 - 247.5]	114.0	[75.4 - 152.5]	73.4	[41.8 - 105.1]	579.3	[489.9 - 668.7]	
Cape Breton District Health Authority	111.1	[87.9 - 134.4]	80.5	[60.7 - 100.2]	118.1	[94.0 - 142.2]	541.0	[488.8 - 593.1]	
Capital Health	136.3	[119.2 - 153.3]	61.5	[50.0 - 73.0]	64.8	[53.0 - 76.7]	477.3	[445.4 - 509.3]	
All Nova Scotia 2004	141.7	[131.4 - 152.0]	77.9	[70.3 - 85.5]	84.8	[76.8 - 92.8]	520.9	[501.0 - 540.8]	
Canada ³ 2001	132.1	[130.3 - 134.0]	64.0	[62.7 - 65.2]	75.4	[74.1 - 76.8]	468.5	[465.1, 471.9]	

¹ Rates are provisional.
² Rates are standardized to the age distribution of the 1991 Canadian population.
³ The 95% confidence interval (range within which a value is expected to fall with a given probability).
⁴ Age-standardized incidence rates obtained from Cancer Surveillance Online, Health Canada, Aug. 8, 2005.

Source: Cancer Care Nova Scotia

Mortality Rates

FEMALES				ALL CANCERS			
		CANCER SIT	Ē	Total Mortality 2004 ¹	Mortality rate ^{2,3} per 100,000	95% CI ⁴	
DISTRICT HEALTH AUTHORITY	BREAST	COLORECTAL	LUNG	OTHER			
South Shore Health	11	16	13	46	86	152.4	[118.2 - 186.6]
South West Health	11	9	16	32	68	132.5	[98.8 - 166.3]
Annapolis Valley Health	14	18	24	46	102	156.5	[124.6 - 188.3]
Colchester East Hants Health Authority	8	9	29	37	83	166.3	[129.0 - 203.6]
Cumberland Health Authority	7	6	13	30	56	171.1	[122.8 - 219.3]
Pictou County Health Authority	9	9	14	34	66	177.2	[131.5 - 222.8]
Guysborough Antigonish Strait Health Authority	7	8	23	23	61	158.2	[116.1 - 200.3]
Cape Breton District Health Authority	23	23	45	93	184	168.8	[143.2 - 194.4]
Capital Health	66	56	89	182	393	159.3	[143.1 - 175.6]
All Nova Scotia ⁵	156	154	266	523	1,099	159.6	[149.8 - 169.4]

¹ Rates are provisional.
² Rates are standardized to the age distribution of the 1991 Canadian population.
³ The 95% confidence interval (range within which a value is expected to fall with a given probability).
⁴ Age-standardized incidence rates obtained from Cancer Surveillance Online, Health Canada, Aug. 8, 2005.

MALES ALL CANCERS									
		CANCER SIT	ſE	Total Mortality 2004 ¹	Mortality rate ^{2,3} per 100,000	95% CI ⁴			
DISTRICT HEALTH AUTHORITY	PROSTATE	COLORECTAL	LUNG	OTHER					
South Shore									
Health	13	21	29	36	99	234.6	[188.1 - 281.1]		
South West Health	9	15	32	46	102	249.3	[200.3 - 298.2]		
Annapolis Valley Health	11	20	26	54	111	224.9	[182.6 - 267.3]		
Colchester East Hants Health Authority	5	9	26	33	73	180.8	[138.8 - 222.8]		
Cumberland Health Authority	6	4	25	27	62	267.6	[200.1 - 335.1]		
Pictou County Health Authority	11	10	27	22	70	239.6	[182.8 - 296.5]		
Guysborough Antigonish Strait Health Authority	7	14	22	36	79	267.6	[208.0 - 327.3]		
Cape Breton District Health Authority	15	27	67	93	202	255.9	[220.3 - 291.4]		
Capital Health	47	58	127	206	438	246.7	[223.3 - 270.1]		
All Nova Scotia ⁵	124	178	381	553	1,236	240.4	[226.9 - 253.9]		

¹ Provisional data.

² Rates are standardized to the age distribution of the 1991 Canadian population.
³ Age-specific rates used in the calculation of age standardised rates rely on 2003 population figures in place of 2004, which are currently unavailable.

⁴ The 95% confidence interval (range within which a value is expected to fall with a given probability).

⁵ Nova Scotia total includes those cancer sites that could not be assigned to a District Health Authority.

Source: Cancer Care Nova Scotia



Incidence of Invasive Meningococcal Disease

Definition

The rate per 100,000 population of reported new cases of invasive meningococcal disease reported annually in individuals less than 20 years of age in Nova Scotia. A confirmed case is defined as invasive disease (e.g. meningitis and /or Septicaemia with possible progression to purpura fulminans, shock, and death) with laboratory confirmation of infection through isolation of *Neisseria meningitidis* from a normally sterile site (blood, cerebrospinal fluid, joint, pleural or pericardial fluid) or demonstration of *N. meningitidis* antigen in cerebrospinal fluid.⁶

Significance – Rationale and Notes for Interpretation

Epidemiological data on invasive meningococcal disease enables evidencebased planning for immunization programs. The decreasing annual incidence of laboratory-confirmed cases of invasive meningococcal disease in Nova Scotia has reflected a similar trend in Canadian rates over the past decade. Following an outbreak in 1992, overall incidence in Nova Scotia has remained consistently low and since 1998, has averaged 2 cases per 100,000 annually in those less than 20 years of age. Incidence has been shown to be highest among young

⁶ Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000.

children and to decline with increasing age. Because of this, immunization programs generally focus on those less than 20 years of age.

Technical Specifications

Numerator:Total number of cases < 20 years of age</th>Denominator:Total population < 20 years of age in Nova Scotia</td>Calculation:Numerator/denominator x 100,000

Source: Office of the Chief Medical Officer of Health, Nova Scotia Department of Health.





Incidence of Verotoxigenic Escherichia coli Infection

Definition

The rate per 100,000 of reported new cases of verotoxigenic *Escherichia coli* infection reported annually in Nova Scotia. A confirmed case is defined as laboratory confirmation of *E. coli* infection with or without symptoms including isolation of verotoxin producing *Escherichia coli* or other toxigenic strains from an appropriate clinical specimen.²

Significance – Rationale and Notes for Interpretation

Escherichia coli 0157:H7 (verotoxigenic *E. coli*) most often acquired through consumption of undercooked, contaminated ground beef has become an emerging cause of food borne illness.³ Following an increase from <1 case per 100,000 in 1997 to approximately 8 cases per 100,000 in 1998, the rates of new laboratory-confirmed cases of verotoxigenic *E. coli* in Nova Scotia have shown an apparent decrease since 1999 with an incidence of 1.3 per 100,000 population in 2004.

Technical Specifications

² Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000

³ Health Canada. Notifiable Diseases On –Line. http://www.cythera.ic.gc.ca/dsol/ndis/index_e.html

Numerator:Number of reported cases of Verotoxigenic E. coliDenominator:Total population of Nova ScotiaCalculation:Numerator/denominator x 100,000

Source: Office of the Chief Medical Officer of Health, NS Department of Health


Incidence of Chlamydia trachomatis Infection

Definition

The rate per 100,000 of new cases of Chlamydial infection (genital) reported annually in Nova Scotia. A confirmed case is defined as laboratory confirmation of *Chlamydia trachomatis* infection as detected using appropriate laboratory techniques in genitourinary specimens.⁴

Significance – Rationale and Notes for Interpretation

Chlamydia is a sexually transmitted disease, which may result in female infertility and ectopic pregnancy. Rates of infection can be used as an indicator for the effectiveness of prevention programs. The number of reported cases of genital Chlamydia (*Chlamydia trachomatis*) infection in Canada reached 179.3 cases per 100,000 population in 2002 compared to 113.9 per 100,000 in 1997.⁵ Similarly, in Nova Scotia incidence rates increased from 119.5 cases per 100,000 in 1997 to 168.5 per 100,000 in 2004. In Nova Scotia, rates in females increased over this period and far exceeded the rates in males in both the 15-19 and 20-24 year age groups. While rates may have increased, much of this increase can be attributed to more sensitive testing.⁵

⁴ Advisory Committee on Epidemiology and Division of Disease Surveillance, Bureau of Infectious Diseases, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Case Definitions for Diseases Under National Surveillance. Minister of Public Works and Government Services Canada, 2000

⁵ Public Health Agency of Canada. 2002 Canadian Sexually Transmitted Infections Surveillance Report. CCDR 2005;31S2:1-39.

Technical Specifications

Numerator: Reported cases of genital *Chlamydia* infection Denominator: Total population (and by sex) of Nova Scotia *Calculation:* Numerator/denominator x 100,000

Source: Notifiable Disease Reports; NS Data: Office of the Chief Medical Officer of Health, NS Department of Health





Prevalence of Diabetes Percentage of Population with the disease (Aged 20 + Years)

Definition

This indicator measures the age standardized prevalence rate of diabetes mellitus for Nova Scotians age 20 or over. Prevalence rates are calculated as the proportion of new and existing diabetes cases for a given jurisdiction. Diabetes cases are determined from the National Diabetes Surveillance System (NDSS) annual person-level summary file as any individual with a date of diagnosis on or before March 31, 2003.

Significance - Rationale and Notes for Interpretation

The goal of the Diabetes Care Program of Nova Scotia (DCPNS) is to improve the standards of care for people with diabetes, improve continuing education access for health care professionals and physicians directly involved in the delivery of diabetes care and education, and the collection and analysis of information related to diabetes and diabetes education in Nova Scotia. Diabetes has been diagnosed in approximately 6.48% of the adult population in Nova Scotia. The increase in prevalence is expected since diabetes as a chronic disease has lengthy duration. Some of the factors contributing to the increase in prevalence are aging population, increasing rates of inactivity, poor nutrition, and overweight/obesity. Prevalence increases with age for both sexes, peaking in the 70-79 age group; however, it slightly decreases in the oldest age group 80+. This may be the result of mortality associated with diabetes or increased co-morbidity at older ages, which increases the likelihood that conditions other than diabetes will be recorded. Strong support should be given to risk factor reduction through both targeted and population health initiatives aimed at the broader determinants of health.

Technical Specifications

Standardized rates are used when comparing populations as they account for differences in the age and sex distribution in each jurisdiction.

NDSS algorithm: a person is identified as having diabetes with one hospital or two physician visits within two years coded with a diagnosis of diabetes mellitus. *Calculation:* (The total number of people ages 20 and above who have been diagnosed with diabetes during a fiscal year/ the yearly Nova Scotia population estimate ages 20 and above)**X** the age-standardizing process) **X** 100 per fiscal year.

Source: Diabetes Care Program of Nova Scotia, Halifax, NS; National Diabetes Surveillance System, Health Canada.



Section 3 Surgical Interventions

Often, as a result of disease, surgical interventions are required as part of a care plan. Measuring the number of surgical interventions performed provides an indication of accessibility, health care system responsiveness, service provision, and disease incidence.

Surgical interventions are analyzed using age-standardized data. Age standardization is a way of looking at the proportion of surgical interventions in a specific place and asking, "what would we expect the proportion of interventions to be if this place had the same age structure as the rest of Canada?" The rates shown therefore do not reflect the actual number of observed cases, but the numbers of expected cases in the standard population.

By using this method, we can make valid comparisons of surgery rates across different parts of the province/country. These data must be standardized to the same population census data. Data is not comparable if, for instance, some data is standardized to 1996 population data and some is standardized to 1991 population data.

In April 2001, a new classification system for capturing diseases and clinical interventions, ICD-10-CA/ CCI, was implemented by CIHI. The ICD-10-CA is the Canadian modification of the ICD-10 used by the World Health Organization (WHO). The CCI or Canadian Classification of Health Interventions was developed by CIHI. Some indicators may show significant changes in time-trend data from the years prior to the introduction of the new classification system in 2001/02. The CCI classification system combines some procedures into one code whereas in the previous classification system, ICD-9 CM, more than one code was often used to describe the intervention. Caution must be used in interpreting trend data between these classification systems.

Please note that all results only reflect surgeries performed in Nova Scotia hospitals.



Total Hip Replacements

Definition

Surgical removal of the hip joint with replacement by a synthetic hip joint.

Significance – Rationale and Notes for Interpretation

The intended outcome of most elective surgery is improved health-related quality of life. Increases in hip replacements may reflect increased access to orthopedic care and result in improved population health status or could reflect bone degeneration in the population. Over 94% of those receiving a hip replacement reported significant improvement in pain, stiffness and overall functioning.⁶

Technical Specifications

Calculation: Using ICD-9-CM code 81.51 and CCI (Canadian Classification of Health Interventions) codes 1.VA.53-LA-PN^ and 1.VA53-PN-PN^. ((The number of total hip replacements performed as principal intervention per district of residence)/(the population for the district) X Standardizing Process) X 100,000.

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database, NS PRTWG Report

⁶ as reflected in SF-36 and WOMAC results, Reporting to Nova Scotians on Comparable Health and Health Systems Indicators, 2001





Total Knee Replacements

Definition

Surgical removal of the entire knee joint with replacement by a synthetic knee joint.

Significance – Rationale and Notes for Interpretation

The intended outcome of most elective surgery is improved health-related quality of life. Increases in knee replacements may reflect increased access to orthopedic care and result in improved population health status or may reflect bone degeneration in the population.

Technical Specifications

Calculation: Using ICD-9-CM codes 81.54 and 81.55 and CCI (Canadian Classification of Health Interventions) code 1.VG.53[^]. ((The number of total knee replacements as principal interventions per District of residence)/(the population for the District) **X** Standardizing Process) **X** 100,000.

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database, NS PRTWG Report







Definition

Surgical removal of the uterus.

Significance – Rationale and Notes for Interpretation

Medical debate surrounds the need for hysterectomy procedures for reasons other than cancer. Traditionally, hysterectomy procedures have also been used for the treatment of diseases such as fibroids and menorrhagia. With new treatment alternatives, the need for hysterectomies to be performed for noncancer diagnoses should decrease. Canada has one of the highest rates of hysterectomy procedures in the world, second only to the United States. Differences in rates often reflect the debate over appropriate use of this procedure and the differences/variation of physician practice.

Technical Specifications

Calculation: Using ICD-9-CM codes 68.3 to 68.9 and CCI (Canadian Classification of Health Interventions) codes 1.RM.89.[^] and 1.RM.91.[^] for total and radical hysterectomies. **((**The number of hysterectomies performed as any intervention per District of residence)/(the population estimate per District) **X** Standardizing Process) **X** 100,000.

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

Disclosures

Excludes: Subtotal and partial hysterectomies





Cardiac Catheterizations

Definition

The insertion of a cardiac catheter into the right or left heart chamber for the detection of a cardiac abnormality.

Significance – Rationale and Notes for Interpretation

Cardiac catheterizations are a diagnostic procedure used for determining heart disease. Measuring the number of cardiac catheterizations performed provides an indication of how many people in the population are experiencing symptoms of heart disease and having diagnostic procedures performed to determine the cause of symptoms. Provincially, age standardized cardiac catheterization rates have increased from 246 per 100,000 in 2000/01 to 276 per 100,000 in 2004/05. The number of catheterizations by DHA of residence ranges from an age standardized high of 311 per 100,000 for DHA 9 to an age standardized low of 205 in DHA 7.

Technical Specifications

Calculation: Using ICD-9-CM codes 37.21 to 37.23 and CCI principal intervention code 3.IP.10[^]

((The number of cardiac catheterizations done as principal intervention)/(the population for the province) X Standardizing Process) X 100,000

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database





Coronary Angioplasties

Definition

Dilation of an obstructed coronary artery or the procedural removal of a thickened coronary arterial intima (using a balloon-tipped catheter), inserted through the femoral or other artery, with or without infusion of a thrombus-destroying substance.

Significance – Rationale and Notes for Interpretation

Coronary angioplasties are used to prevent future heart complications (for example heart attack), or for a therapeutic intervention to restore function post heart attack. The rates may represent patients' access to care, as well as adequacy of early diagnosis and treatment. Angioplasties have increased from a rate of 93 per 100,000 in 2000/01 to 116 per 100,000 in 2004/05. In 2004/05, the rates per DHA range from a high of 142 per 100,000 in DHA 8 to a low of 83 per 100,000 in DHA 7.

Technical Specifications

Calculation: Principal intervention ICD-9-CM codes 36.01, 36.02 and 36.05 and CCI code 1.IJ.50.[^] used.

((The number of coronary angioplasties done as principal intervention/the population for the province) X Standardizing Process)) X 100,000

Source: Nova Scotia Department of Health, Canadian Institute for Health

Information Discharge Abstract Database.





Coronary Artery Bypass Graft (CABG)

Definition

Restoration of coronary blood flow by a tubular surgical bypass (grafted mammary artery or saphenous vein) of an occluded coronary artery.

Significance – Rationale and Notes for Interpretation

Coronary artery bypass grafts are performed to restore blood flow to the heart. CABG's are preformed to prevent future heart complications (for example heart attack), are a therapeutic intervention to restore function post heart attack, and may be representative of patients' access to care. Coronary artery bypass graft (CABG) rates range from 84 per 100,000 in 2001/02 to 62 per 100,000 in 2004/05. In 2004/05, the rates for CABG ranged from a high of 72 per 100,000 in DHA 5 to a low of 53 per 100,000 in DHA 7.

Technical Specifications

Calculation: Principal intervention ICD-9-CM codes 36.10 to 36.19 and CCI code 1.IJ.76.^^ used.

((The number of coronary artery bypass grafts performed as principal intervention per District of Residence)/(the population for the province) X Standardizing Process) X 100,000

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database



Section 4 Provincial Services

In Nova Scotia, a number of programs work together to provide the health care services our communities require. Many of these programs provide specialized services offered outside of the hospital environment. These programs help to facilitate and provide appropriate care and develop disease prevention and promotion programs.

The data these programs collect provides information on the health care needs of specific communities and age groups and allows effective planning and funding of services in these areas.



Mental Health Programs

- 1. Inpatient Separations Adults (> 19 years) Nova Scotia, 2004/05
- 2. Patient Days Adults (≥19 years) Nova Scotia, 2004/05
- 3. Inpatient Separations Children (<19 years) Nova Scotia, 2004/05
- 4. Patient Days Children (<19 years) Nova Scotia, 2004/05

5. Ambulatory Care, Average Visits Per Client and Active Clients Per 1000 Population – 1996/97 to 2004/05

6. Ambulatory Care Number of People Served - Mental Health Outpatient Information System (MHOIS) - Unique Clients 1996/97 to 2004/05

- 7. Top Diagnoses, Outpatient Clinics Adults (≥19 Years) 2004/05
- 8. Top Diagnoses, Outpatient Clinics Youth (<19 Years) 2004/05

Definition

1 & 3 Inpatient Separations - Adults (\geq 19 Years) and Children (<19 Years) Separations from designated psychiatric units in Nova Scotia hospitals.

2 & 4. Patient Days - Adults (\geq 19 Years) and Children (<19 Years) The number of days accumulated by separations from designated psychiatric units in Nova Scotia hospitals.

5. Ambulatory Care – Average Visits per Client and Active Clients per 1000 Population 1996/97 to 2004/05 Visits per Client: average visits per client is an indicator of service intensity. Unlike the active client rate (discussed below) the visits per client indicator represents the number of total visits (as defined by MIS guidelines) not unique clients, and is divided by the number of clients whose files were open during the reporting period.

Active Client Rate: Active unique clients per 1000 population (refers to unique Health Card numbers). 'Active unique clients' is a unique count of individuals treated within a given period, in this case, one year. The 1991 Statistics Canada Census population for Nova Scotia is used for the denominator.

6. Ambulatory Care - Number of People Served - Mental Health Outpatient Information System (MHOIS) Unique Clients – 1996/97 to 2004/05 This is a unique count of the number of people served by the outpatient Mental Health Programs in Nova Scotia.

7. Top Diagnoses - Outpatient Clinics - Adults (≥19) – 2004/05 Top Diagnoses – Outpatient Clinics (Ambulatory Care)

8. Youth (<19) clients treated in outpatient mental health programs in Nova Scotia during 2004/05. 'Diagnosis Deferred' occurs when mental health therapists either do not have enough exposure to a client (for example one visit), or the problem is difficult to diagnose and thus the diagnosis is deferred until an accurate one can be made.



Significance - Rationale and Notes for Interpretation

The Mental Health Program provides a range of services across the life span to residents of Nova Scotia. These services include inpatient services, outpatient and outreach services, community support services as well as specialty services. Information on utilization of these services is necessary in establishing priorities, allocating resources, designing prevention and rehabilitation programs and improving health outcomes.

Technical Specifications

Calculation:

1 & 3: The sum of in-patient separations from each patient service (64 - psychiatry and 65 - pediatric psychiatry) for each diagnostic group for all hospitals with a designated psychiatric unit.

2 & 4: The sum of in-patient days from each patient service (64 - psychiatry and 65 - pediatric psychiatry) for each diagnostic group for all hospitals with a designated psychiatric unit.

5: Visits per Client: the total number of visits *I* the number of clients with open cases during the time period under study.

Active Client Rate: (the number of active unique clients / the 1991 Statistics Canada Census population for Nova Scotia) X 1000.

6: Number of active unique clients served within a specified time period (as captured by the Mental Health Outpatient Information System).

7 & 8: Listing of the five most common / frequently occurring diagnoses for adults (19 and over) and youth (under 19) in outpatient clinics.





Source:

1 – 5 Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database
7 – 10 Mental Health Outpatient Information System, Annual Reports, Nova

Scotia Department of Health











Addiction Services Programs

Definition

1. The total number of male and female clients who used Addiction Services programs in a given fiscal year. Addiction Services includes many program areas: Community-Based Outpatient Services, Detoxification (Withdrawal Management), Addiction Education Program (A.E.P.), Structured Treatment, Methadone Maintenance Treatment (Capital Health and DHA 8 only), Community Oriented Recovery Environment (C.O.R.E.) services (Capital Health only). Three of four Districts have A.E.P's. (Capital Health does not). The Structured Treatment Programs, which includes 21 and 28 day programs, are found in shared services areas: DHA 1, 2 and 3, and DHA 7 and 8.

2. The number of clients in Community-Based Services. The total number of clients discharged from other services including: Detoxification (Withdrawal Management), A.E.P., Structured Treatment, Methadone Maintenance Treatment, and CORE (Capital Health). Services vary between Districts.

Significance – Rationale and Notes for Interpretation

Addiction Services Program data assist service planners and providers in developing and maintaining effective, efficient and appropriate services by examining the number of, and characteristics of, people using services (eg type of services used by sex, age group). Addiction services program data monitors the use of services. These services are intended to minimize the harms associated with substance use and/or gambling, thereby improving the health of Nova Scotians.

Technical Specifications

Calculation:

1. The total number of unique male and the total number of unique female clients who used Addiction Services programs in a given fiscal year.

2. The total number of clients in Community-Based Services. The total number of clients discharged from Detox, A.E.P., Methadone Maintenance Treatment, Structured Treatment, and C.O.R.E.

Source: Nova Scotia Addiction Services Program Statistics, Nova Scotia Department of Health





Adult Protection Services

Definition

Adult Protection Services provides protection from abuse (mental, physical, or sexual) and neglect (self-neglect or caregiver neglect) of vulnerable adults, of the ages 16 and over, as mandated by the Adult Protection Act, 1985. In Nova Scotia, it is mandatory for all people who believe a person may be in need or protection to report to Adult Protection Services.

Significance – Rationale and Notes for Interpretation

Adult Protection data is gathered to enable effective service planning and provision. This data also enables service providers to recognize increases and decreases in the number of cases reported, and trends in the age of victims, which can indicate a need for health promotion and education strategies targeted at certain areas and/or age groups.

Technical Specifications

The total number of Adult Protection Intakes for 2004/05 is 1,366. An Intake is defined as a referral that has been received and for which there is reasonable and probable grounds to believe the person may be in need of protection.

Calculation:

- 1. District adult protection intakes as a percentage of the provincial intake total
- 2. Reason for Referral as a percentage of the provincial intake total
- 3. Percent of provincial intake total, in one of 6 age categories and as male or female.

Source: Adult Protection Services Program, Continuing Care Branch, Nova Scotia Department of Health







Continuing Care Intakes

Definition

Intakes are referrals to Continuing Care services. A referral can be made by a potential clients, physician, family member, or member of the public. People are referred so they can be assess for Continuing Care services, which include homes care services, long term care services, and Adult Protection services.

Significance – Rationale and Notes for Interpretation

Data on Continuing Care services are collected in order to: measure utilization levels, assist with budgeting efforts, and to provide identification of service trends for program planning purposes.

Technical Specifications

Calculation: The total number of intake assessments conducted during the fiscal years of 2002/03 – 2004/05.

Source: Nova Scotia Department of Health, Continuing Care, SEAscape Database.

Emergency Health Services Nova Scotia (EHS)

Emergency Health Services (EHS) is a division of the Nova Scotia Department of Health. As a regulator, EHS is responsible for the continuing development, implementation, monitoring and evaluation of pre-hospital emergency health services in the province.

EHS integrates various pre-hospital services and programs required to meet the needs of Nova Scotians across the province. The main components are:

- 1) The EHS Communications Center
- 2) The EHS Ground Ambulance System
- 3) EHS LifeFlight
- 4) The EHS Nova Scotia Trauma Program
- 5) The EHS Atlantic Health Training and Simulation Center
- 6) The EHS Medical First Response program

In addition, all system components are monitored by Medical Oversight of physicians specially trained in emergency and critical care.

For more detailed information on EHS, please visit <u>www.gov.ns.ca/health/ehs</u>

Approximately 140 ground ambulances, one rotary wing aircraft and one fixed wing aircraft are dedicated to meeting the direct patient care needs of Nova Scotia's citizens. For 2002/03, this resulted in close to 96,000 requests for ground service with over 84,000 transports, and almost 900 requests for air service with just under 600 transports.

1.0 EHS Ground Ambulance

Figure 1.1 Ground Ambulance Call Volumes



EHS has defined minimum standards for response time reliability. Response time is the "actual elapsed time between when a call is received at the EHS communications center and the actual arrival of the ambulance at the location". By setting these standards and evaluating compliance with them, EHS offers an effective emergency service to Nova Scotians. Figure 1.2 shows the response times for emergency calls for the entire province (urban and rural areas) during the year 2004/05.



Figure 1.2 Ground Ambulance Response Times

Source: EHS CAD

Response time: The actual elapsed time (in minutes and seconds) between when the call is received at the EHS communications center and the actual arrival of an ambulance at that location

One way to determine the skills and equipment that paramedics require to do their job efficiently is to identify the most frequently requested types of emergency services. Figure 1.3 illustrates the "Top Ten" chief complaints received for the year 2004/05, as a percentage of total calls received.



Figure 1.3 Chief Complaints for Ground Ambulance Calls

One of the main clinical outcome measures for most EHS systems is cardiac arrest survival. During calendar 2004, 710 cardiac arrest patients had resuscitations initiated in the field. Figure 1.4 presents the out-of-hospital cardiac arrest survival rates for Nova Scotia for the years 1998-2004. (Survival is defined as a patient being discharged from hospital neurologically intact after having an out-of-hospital cardiac arrest)

Figure 1.4 Cardiac Arrest Statistics



2.0 EHS LifeFlight

During the year 2004/05, EHS LifeFlight completed 555 missions. Of those, 488 (88%) were in Nova Scotia and 67 (12%) missions were in other provinces. Figure 2.1 shows the distribution of missions by location.

Figure 2.1 EHS LifeFlight Missions



Other: Other provinces of Canada or the United States

Figure 2.2 EHS LifeFlight Missions by Response Type



Source: EHS LifeFlight

Inter-Facility: The patient is transported between two approved health care facilities. Scene: Request for a transport originates from a scene of injury or illness and the patient is picked up directly from the scene.

Scene Inter-Facility: Request for a transport originates from the scene of injury or illness and patient is picked up from a health care facility.

Other: Repatriation



Tobacco Control Unit Overall Compliance and Retailer Compliance Rates: Tobacco Sales to Minors by DHA, Fiscal 2004/05

Definition

The percentage of retailers complying with the requirements outlined in the Provincial *Tobacco Access Act* and the Federal *Tobacco Act*.

Significance – Rationale and Notes for Interpretation

Overall compliance is a measure of retailer compliance with the requirements outlined in the Provincial *Tobacco Access Act* and the Federal *Tobacco Act*, as opposed to Retailer Compliance: Sales to Minors being a measure strictly of retailers selling to minors. Tobacco sales are controlled by legislation making it illegal to sell to people under 19 years of age.

Technical Specifications

Calculation:

(((The total number of inspections + Compliance checks) – (the number of retailers cited)) / (the total number of inspections + Compliance checks)) X 100.

Source: Tobacco Control Unit Annual Statistics, Nova Scotia Department of Health



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Section 5 Health Care System Performance

Comparative health system performance indicators help health districts monitor their efficiency, effectiveness and improvements over time. This section provides typical health system performance indicators including a number of those discussed below.

Population by physician and registered nurse are useful indicators of the number of physicians and nurses relative to the population but cannot be used in isolation to assess the adequacy of provider resources. The populations' access to hospitals, other health care facilities, technology; specific types of physician (primary care physicians vs. specialists), physician age and sex can influence whether the supply of provider resources is appropriate.

Hospital beds per 1000 population, patient days per 1000 population, and average length of stay are basic indicators of hospital access, utilization and efficiency.

It has been shown that preadmission testing and surgery on the day of admission helps to decrease the length of stay for a patient. This translates into reduced health care costs for hospitals.

Readmission rates are often used to suggest the effect of bed closures and the shortening of hospital stays.

Ambulatory care sensitive conditions or ACSC is a CIHI indicator. The conditions this indicator focuses on are chronic diseases where it is felt that appropriate ambulatory care could either prevent or shorten hospitalization. Districts and/or hospitals can monitor the volume of cases and total days to see if better or more ambulatory care could be provided.

Inflow/outflow ratios compare hospital services given in a specific district to hospital services received by residents of that same district.

Caesarean sections (C-Sections) have long been monitored as an indicator of health system performance. Unnecessary Caesarean sections increase the risk for maternal morbidity and mortality and are associated with higher costs. Lower rates indicate more efficient care and are more appropriate. WHO has set a benchmark of 15%.

The Department of Health reports on a varietyof wait times on its Wait Time Website. Monthly indicators wait times for cardiovascular procedures and cardiac intervention have been collected and monitored by the Cardiovascular Division of the Queen Elizabeth II Health Sciences Centre and the Department of Health for several years. This is also an indicator of health system performance.



Patient Days per 1000 Population

Definition

Patient care days for acute care inpatient separations (by DHA of residence) expressed as a rate per 1000 population for a specified time period.

Significance – Rationale and Notes for Interpretation

Patient days per 1000 population is an indicator of resource use and service planning. Throughout the country, as well as Nova Scotia, patient days per thousand population have been decreasing since the mid 1990's. Standardizing removes the effects of age (and/or sex) in the population. The resulting standardized rate provides a more appropriate comparison between geographic areas and time periods than does the crude rate. Age standardized patient days per 1000 population range from a high of 884 in DHA 8 to a low of 525 in DHA 3. Patient days per 1000 have decreased in Nova Scotia from a high of 860 in 2000/01 to 686 in 2004/05.

Technical Specifications

Calculation:

Figure 1: **((**The total days stay for hospital inpatient separations/NS population**) X** Standardizing Process **X**1000

Figure 2: **((**The total days stay of those patients separated from hospital by DHA of residence/the yearly NS population estimate by DHA) X Standardizing Process X 1000

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database; Statistics Canada population estimates.

Disclosures

Exclusions: Veteran Affairs of Canada (VAC), newborns, out of province patients

Inclusions: Acute medical, surgical and psychiatric inpatient days





Beds per 1000 Population

Definition

The number of acute care beds per 1000 population.

Significance – Rationale and Notes for Interpretation

We report the number of beds per 1000 population as a measure of hospital capacity and available resources. Acute care bed numbers in Nova Scotia have been decreasing during the last ten years, from 5.3 beds per 1000 population in 1992/93 to 3.1 beds in 2004/05 although there has only been slight change since 2000/01.

Technical Specifications

Calculation: (The total number of acute care beds / the Nova Scotia population) X 1000

Source: Information Analysis & Reporting, Nova Scotia Department of Health

Disclosures

Exclusions: Veterans Affairs of Canada (VAC), Detoxification beds and Level 2 beds.

Inclusions: Acute care, mental health and rehabilitation inpatient bed



Average Length of Stay

Definition

The average length of a hospital stay for acute care inpatients by DHA of residence.

Significance – Rationale and Notes for Interpretation

There is debate about the usefulness of overall average length of stay (ALOS) as an indicator. Lengths of stay for particular patient groups, especially when compared with other facilities are more commonly used for utilization management at the facility or inter-district level.

Technical Specifications

Calculation: (The total length of stay (in days) for acute inpatient separations by DHA of residence)/(the total acute inpatient separations DHA of residence)

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.

Disclosures

Exclusions: newborns, forensic, and out-of-province patients *Inclusions:* All days and separations for medical, surgical, and acute inpatient cases.



Definition

Alternate Level of Care (ALC) Days are days of care provided to inpatients who have finished the acute care phase of their treatment or who were admitted for non-acute medical care. ALC status is indicated by the physician or designated other.

Significance – Rationale and Notes for Interpretation

CIHI (Canadian Institute for Health Information) has provided the ALC designation in order to capture those hospital inpatients no longer receiving acute care. This indicator is designed to assess the processes that ensure the placement of patients in the most appropriate care setting. Differences in rates between facilities, districts and provinces may reflect differences in reporting practices rather than differences in hospital utilization or patient mix. ALC rates range from 20.3% in DHA 2 to 1.1% at the IWK.

Technical Specifications

Calculation:	1: ((The total ALC days)/(total inpatient days)) X 100
	2: ((The total ALC day per hospital)/(the total days stay per
	hospital)) X 100

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.





Percentage Elective Surgery Performed On the Day of Hospital Admission

Definition

Same Day Admission surgery occurs when a patient's elective surgery is performed on the same day he/she was admitted. In other words, the admission date is the same as the intervention date. All preparatory investigation is completed prior to admission. Only surgeries performed in an operating room or an endoscopy room are included. (Obstetrical procedures are excluded.)

Significance – Rationale and Notes for Interpretation

Preadmission testing followed by surgery on the day of admission help to decrease the length of stay for a patient. This translates into reduced health care costs. The percentage of elective surgeries done on the day of admission has increased steadily from 7% in 1990/91.

Technical Specifications

Calculation: ((The number of elective separations with surgery performed on the day of hospital admission)/(the total number of elective separations having surgery)) X 100

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database

Disclosures

Inclusions: Out-of-province patients and newborns





Readmission to the same Hospital – Unplanned from previous Acute Admission within one week of discharge with the same or related diagnosis

Definition

Admission to acute care < 7 days; unplanned from previous acute admission at the same facility with the same or related diagnosis, inpatients only.

Significance – Rationale and Notes for Interpretation

Hospital readmission rates have been used to measure the effects of decreasing bed numbers and lengths of stay. Percentages of unplanned readmission are low for the province with the highest being 3.5% for Cumberland Regional Health Care Center.

Technical Specifications

Calculation: ((The number of readmissions \leq 7 days; unplanned from previous acute admission)/(total number of separations)) **X** 100.

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.



Ambulatory Care Sensitive Conditions

Definition

Inpatient acute care hospitalization rate for conditions where appropriate ambulatory care may prevent or reduce the need for admission to hospital. These conditions are based on a list developed by Alberta and use most responsible ICD-10-CA diagnosis codes of: diabetes mellitus [E10.1,E10.6, E10.7, E10.9, E11.0, E11.1, E11.6, E11.7, E11.9, E13.0, E13.1, E13.6, E13.7, E13.9, E14.0, E14.1, E14.6, E14.7, E14.9]; hypertensive diseases [I00 to I11] (excluding cases with specific surgical procedures); grand mal status and other epileptic convulsions [G40 and G41]; asthma [(J45]; chronic obstructive pulmonary disease [J41 to J44 & J47] (acute bronchitis [J20] only with secondary diagnosis of COPD; pneumonia [J12 to J16 & J18] only with secondary diagnosis of COPD; congestive heart failure [I50 & J81] excluding cases with specific surgical procedures; angina [I20, I23.82, I24.0, I24.9] excluding cases with any surgical procedure of 1*, 2* or 5*; numerator excludes death before discharge.

Significance – Rationale and Notes for Interpretation

While not all admissions for ambulatory care sensitive conditions are avoidable, it is assumed that appropriate ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. The correct level of utilization is not known although a disproportionately high rate of ambulatory care sensitive conditions suggests problems in obtaining access to primary care.

Technical Specifications

Calculation:

- 1. ((The number of separations with an ACSC most responsible per district / total separations per district) X 100
- 2. ((The number of separations with an ACSC most responsible per hospital/ total separations per hospital)) X 100

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database.





Inflow/Outflow Ratio

Definition

This indicator is used for acute care inpatients separations only. It compares the number of separations from acute care hospitals within a DHA to the number of hospital separations of residents from the same DHA (all DHAs of hospitalization). The IWK is included in DHA 9 for this indicator.

Significance – Rationale and Notes for Interpretation

A ratio of less than one indicates that more residents left their own DHA to receive care than the number of residents that came into the DHA to receive care. A ratio greater than one indicates that more people came into the DHA to receive care than the number of people that left the DHA to receive care. A ratio of one indicates that the volume of hospital discharges in the DHA is equivalent to that generated by its residents, suggesting that inflow and outflow activity, if it exists at all, is balanced. Inflow/outflow ratio ranges from a high of 1.41 in DHA 9, which indicates an inflow, which would be expected as the tertiary care facilities are located in DHA 9, to almost 0.7 for DHA 4.

Technical Specifications

Calculation: (The numbers of separations (discharges and deaths) from acute care hospitals within a given region)/(the number of hospital separations generated by residents of a given district (region is specified in the numerator))

Source: Nova Scotia Department of Health, Canadian Institute for Health Information Discharge Abstract Database



Caesarean Section

Definition

Removal of the fetus through surgical incision of the uterus. The number of Caesarean sections (c-sections) performed, as a percent of all deliveries, in each DHA.

Significance – Rationale and Notes for Interpretation

An elevated number of Caesarean sections may increase the maternal risk of morbidity and mortality. The overall Caesarean section rate has been climbing for the province since a low of 19.6% in fiscal 1995/96. For 2004/05, the rate for the province is 27.8%. Small volumes of deliveries and C-sections in a given DHA result in significant variation in C-Section rates. Caution should be used when making comparisons of rates across DHAs. WHO has set a benchmark for Caesarean sections as 15% of all deliveries.⁷

Technical Specifications

Calculation: C-sections were counted using any procedure starting with 5MD60^^. (The total number of caesarean sections / the total number of deliveries) X 100 Source: Nova Scotia Department of Health, Canadian Institute for Health

Information Discharge Abstract Database

⁷ CIHI Health Indicators 2006 Definitions, Data Sources and Rationale February 2006





Cardiovascular Surgery Wait Times

Definition

1. Maximum wait time in days for cardiovascular surgery for urgent patients by month. **Urgent** patients are critically ill and cannot be discharged from hospital prior to receiving surgery. They have failed maximal medical therapy and remain unstable. The current wait time standard is 7 days. **Semi-Urgent** "A" patients are unstable, have failed medical therapy and are at significant risk of heart attack or heart failure and mortality. In many instances, patients are transferred back to their District hospital while arrangements are being made to have surgery. The current wait time standard is 2-3 weeks. **Semi-Urgent** "B" patients have coronary artery disease and are doing poorly on medical therapy. They would have chest pain walking 1-2 blocks and are incapable of employment. If these patients can exercise greater than 2 mets (a met is a standardized score on a cardiac stress test) but less than 5 mets during a stress ECG test they fall into this category. The current wait time standard is 6-8 weeks.

2. Maximum wait time in days for cardiovascular surgery for elective patients by month. **Elective** patients are stable on medical therapy; unable to work due to cardiac limitations; and felt to further improve with bypass surgery. The current waiting time standard is 3 months.

Significance – Rationale and Notes for Interpretation

Systematic collection and comparison of wait time data is complex. Historically, different groups have defined and monitored wait times in different ways. For

example, some calculate wait times from when a person first visits a family doctor. Others start the clock when the patient is assessed by a specialist or when test results confirm the need for further treatment or from some other point. There are advantages and disadvantages to each approach. Nonetheless, such differences have to be reconciled if meaningful comparisons between jurisdictions are to be made.

Technical Specifications

Calculation: The total number of days waiting between the procedure booking date (by the referring physician) and the date of the procedure.

Source: Divisions of Cardiology and Cardiovascular Surgery, QEII Health Sciences Centre Monthly Wait Times



Section 6 Insured Programs Indicators

Insured Programs expenditures can be measured by examining the cost and number of insured services provided to Nova Scotia residents.

Expenditures for Insured Programs data is based on the date the service occurred.

Physician services expenditure data include:

- the amount paid by the Province of Nova Scotia to physicians for insured services to Nova Scotia residents in-province, out-of-province, or out-of-country, unless otherwise stated.
- expenditures for Fee-for-Service, Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room services, and miscellaneous accounting adjustments.

Physician services expenditure data exclude:

- all federal payment categories as services provided to members of the Royal Canadian Mounted Police (RCMP) and Armed Forces personnel, as their services are funded federally.
- physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services and services provided to residents of other provinces and territories.

Seniors' Pharmacare program includes both the Department of Health expenditures and Seniors' contributions.

Population data is from Statistics Canada's estimates as of July 1st each year.



Physicians per 10,000 Population

Definition

Map of population per physician, including specialists, by District Health Authority.

Significance – Rationale and Notes for Interpretation

Health care professional per population is used as an indicator of relative access to the health care system. Reflecting the location of the province's tertiary facilities and the vast majority of medical specialists, the number of physicians per 10,000 population is highest within the Capital district, indicating greater access. The lowest number of physicians per 10,000 population (least access) occurs in the southwest portion of the province (DHA 2). Note: On its own, number of professionals per population does not indicate whether or not there are sufficient numbers of heath professionals in a given area.

Technical Specifications

Calculation: (Number of Physicians / Population) X 10,000

Source: Statistics Canada, Nova Scotia Department of Health



Physicians' Services: Number of Physicians by type of Practice

Definition

The annual number (head count) of physicians paid by the Province of Nova Scotia for insured services delivered to Nova Scotia residents in-province.

Significance – Rationale and Notes for Interpretation

Total number includes any physician (full time, part time, locum) who was paid by the province during the fiscal year.

Type of Practice is based on Functional Specialty. Functional Specialty is intended to reflect the specialty that the physician practices for the greatest percentage of his/her time. It may not be consistent with the physician's licensed specialty. General Practitioners functioning primarily as Emergency Room physicians are included in the specialists count not in the General Practice count.

Technical Specifications

Calculation: Head count of physicians by functional specialty. (Physicians not paid by Department of Health are excluded)

Disclosures

Excludes 14 physicians in 2003/04 and 4 physicians in 2004/05 whose specialty is 'Other'. This category includes Administration, Occupational Medicine (GP), and Other.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables



Registered Nurses per 10,000 population

Definition

Map of population per registered nurse by District Health Authority.

Significance – Rationale and Notes for Interpretation

Health care professional per population is used as an indicator of relative access to the health care system. Reflecting the location of the province's tertiary facilities, the highest number of registered nurses per 10,000 population is within the Capital district, indicating greater access. The lowest number of registered nurses per 10,000 population (least access) occurs in Colchester East Hants (DHA 4). Note: On its own, professionals per population does not indicate whether or not there are sufficient numbers of heath professionals in a given area.

Technical Specifications

Calculation: (Number of Registered Nurses / Population) X 10,000

Source: Statistics Canada, Nova Scotia Department of Health



Insured Services: Total Expenditures for Insured Services

Definition

This measure refers to the total annual expenditures for the following Insured programs: Physician Services, Dental (Children's Oral Health, Dental Surgery, and Special Dental Programs), Optometry, Pharmacare (Seniors and Special Assistance Programs), and Prosthetics.

Significance – Rationale and Notes for Interpretation

This data shows annual program expenditures for insured services in Nova Scotia. Government health care expenditures have increased by over 150 million dollars since 2000/01. Medicare data includes Fee-for-Service, Alternative Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments. Pharmacare data includes Drug Cost, Dispensing Fees and Special Funding Assistance Programs. This represents both the Department of Health expenditure and Seniors' contributions for the Pharmacare programs. Dental, Optometric, and Prosthetics services include miscellaneous accounting adjustments.

Technical Specifications

Calculation: Total program expenditures for insured services per fiscal year, expressed in millions of dollars.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables.

Disclosures

Exclusions: This measure excludes health services that are not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, members of the Royal Canadian Mounted Police (RCMP) and Canadian Armed Forces Personnel as their services are federally funded, and services to residents of other provinces and territories.



Physicians' Services: Total Expenditure for Insured Physicians' Services

Definition

This data represents the total annual payments to physicians for insured physician services provided by physicians to Nova Scotia residents in-province, out-of-province and out-of-country.

Significance – Rationale and Notes for Interpretation

Total expenditures for physician services provide a means of tracking expenditure trends. As noted by the above graph, physician total expenditures have increased each year.

Technical Specifications

Calculation: Total amount paid to physicians expressed in millions of dollars.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables.

Disclosures

Inclusions: Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

Exclusions: This measure excludes physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, and services provided to residents of other provinces and territories.



Physicians' Services: Expenditure per Insured Nova Scotia Resident

Definition:

This data represents the annual expenditure per person for insured physician services provided by physicians to Nova Scotia residents in-province, out-of-province, and out-of-country.

Significance – Rationale and Notes for Interpretation

Expenditures per insured Nova Scotia resident provides an indication of the dollars spent per insured resident. As noted by the above graph, physician expenditures per insured NS resident have increased each year.

Technical Specifications

Calculation: (Total physician expenditure / number insured persons in Nova Scotia) expressed in dollars and cents.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables, Statistics Canada Census Population.

Disclosures

Inclusions: Physicians' payments for Fee-for-Service and Alternate Funded physician groups, Canadian Medical Protective Assoc. and Benefit Funds, Rural Stabilization, Emergency Room, and miscellaneous accounting adjustments.

Exclusions: This measure excludes physician payments not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, and services provided to residents of other provinces and territories.



Physicians' Services: Total Number of Insured Services

Definition

The total annual number of insured individual services from billings submitted by Nova Scotia physicians for Nova Scotia residents in-province and for physician services refunded to residents provided while in the Province of Quebec or out-of-country.

Significance – Rationale and Notes for Interpretation

The total number of insured physician services provided to Nova Scotia residents is representative of the utilization of physician service resources. Some services may not be included as they are not available for some Alternate Funded arrangements.

Technical Specifications

Calculation: Total number of services.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables.

Disclosures

Inclusions: Services from Fee-for-Service, Alternate Funded physician groups, NonPatient Specific in-patient and out-patient services, and physician services where a Nova Scotia resident was refunded the cost of a service provided in the Province of Quebec or out-of-country. *Exclusions:* Physician services where the payment is not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, services to residents of other provinces and territories, and services provided to Nova Scotia residents in the 8 provinces and 3 territories under the Reciprocal Billing agreement.



Physicians' Services: Average Number of Insured Services per Nova Scotia Resident

Definition

The annual number of insured services per insured Nova Scotia resident.

Significance – Rationale and Notes for Interpretation

Insured physician services per Nova Scotia resident are representative of the average utilization of physician services per person. Some services may not be included as they are not available for some Alternate Funded arrangements.

Technical Specifications

Calculation: Total number of services divided by the insured population.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables.

Disclosures

Inclusions: Services from physician payments for Fee-for-Service, Alternate Funded physician groups, NonPatient Specific in-patient and out-patient

services, and physician services where the resident was refunded the cost of a service provided in the Province of Quebec or out-of-country.

Exclusions: Physician services where the payment is not the responsibility of the Department of Health. These exclusions include services for Workers Compensation Board, Community Services, RCMP and Canadian Armed Forces personnel as their services are federally funded, services to residents of other provinces and territories, and to Nova Scotia residents in the 8 provinces and 3 territories under the Reciprocal Billing agreement.



Seniors' Pharmacare Program: Total Program Cost

Definition

The Nova Scotia Seniors' Pharmacare Program is a provincial drug insurance plan that helps seniors with the cost of their prescription drugs. The Program covers drugs listed as benefits in the Nova Scotia Formulary. This measure indicates the total annual expenditure for the Program.

Significance – Rationale and Notes for Interpretation

This data is representative of the total expenditure for the Seniors' Pharmacare Program. As the graph notes, Program cost continues to increase. Statistical data represents the total program cost including amount paid by seniors and the Department of Health's contribution. Financial adjustments for the Audited Financial Statements are not reflected in the statistical system.

Technical Specifications

Calculation: Total Program cost per fiscal year as expressed in millions of dollars. Total Program cost is comprised of Drug Cost, Dispensing Fees, mark ups and Compounding Fees as reflected in the Decision Support System.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables, Statistics Canada Census population.



Seniors' Pharmacare Program: Program Cost per Beneficiary

Definition

The Nova Scotia Seniors' Pharmacare Program is a provincial drug insurance plan that helps seniors with the cost of their prescription drugs. The Program covers drugs listed as benefits in the Nova Scotia Formulary. This measure indicates the annual average cost per beneficiary for participants in the Program.

Significance – Rationale and Notes for Interpretation

This data is representative of the annual average cost per beneficiary for the Seniors' Pharmacare Program. As the graph notes, Average Cost per Beneficiary continues to increase. Statistical data represents the total cost per beneficiary for the Program revenues paid by seniors plus the Department of Health's contribution. Financial adjustments for the Audited Financial Statements are not reflected in the statistical system.

Technical Specifications

Calculation: Total Program cost divided by the number of unique beneficiaries expressed in dollars.

Source: Medavie Blue Cross, Department of Health Annual Statistical Tables

Section 7 Management Information Systems Indicators

The MIS Standards are national standards that provide an integrated approach to managing financial and statistical data related to the operations of Canadian health service organizations. They were developed in recognition of the need to improve the effectiveness and efficiency of health service organizations in Canada through better information and measures of productivity.

These guidelines address information at the functional centre and service recipient-specific level, but do not encompass information related to the care, treatment or clinical status of the service recipient, or attempt to quantify or assess the quality of such services.

The indicators found in this section detail how financial and statistical data may be integrated to yield information that is useful for planning, control and evaluation. All functional centre statistics and indicators are designed to provide managers with useful information that can assist them with planning, staffing, budgeting and efficiency management. Indicators link two data elements together to measure performance and to provide information that can be used to facilitate decisions or compare performance.

Here are some definitions that may help your understanding of the information presented in this section:

Functional Centre: a subdivision of an organization used in a functional accounting system to record the budget and actual direct expenses; statistics; and/or revenues, if any, which pertain to the function or activity being carried out.

Inpatient Days: the days during which services are provided to an inpatient between the census-taking hours on successive days. The day of admission is counted as an inpatient day but the day of separation is not an inpatient day. When the service recipient is admitted and separated (discharged or died) on the same day, one inpatient day is counted. Inpatient days apply to nursing inpatient functional centres (primary accounts 712*).

Compensation Expense: is the sum of gross salaries expense, benefit contribution expense, purchased compensation expense, and fees for service expense arising from the remuneration of management and operational support personnel, unit-producing personnel, and medical personnel employed by, or under contract to the health service organization.

Compensation - Medical Personnel (Medical Fees): this account is used to record the compensation expense for medical practitioners who provide medical services and who are remunerated by the health service organization on a salary or contractual basis. Excludes medical personnel who fulfill a management role.

Direct Costs: include all the expenditures for salaries, supplies, equipment, amortization, and other outlays seen in the accounts of the functional centre, including direct expense transfers. Direct costs exclude costs of absorbing cost centres that initially resided in the accounts of transient cost centres but have subsequently been allocated as indirect expense.

Full-Time Equivalent (FTE): the total earned hours charged to a functional centre, expressed in terms of equivalent full-time positions, according to the health service organization's normal earned hours per full-time position.

The above definition can be expressed by the following formula:

 $FTE = \frac{Total \ Earned \ Hours \ in \ Period}{Normal \ Earned \ Hours \ for \ Period}$

Workload Unit: one minute of unit-producing personnel time spent performing service recipient and non-service recipient activities of the functional centre.

Administrative Services Expense as a % of Total Expense



2004 – 2005 Fiscal Year

Definition: The proportion of total expenses attributable to administration.

Significance – Rationale and Notes for Interpretation

An indicator of a hospital's efficiency.

Technical Specifications

Calculation: Total expenditures, net of recoveries, (secondary financial accounts 3* - 9* and 12*) assigned to administrative cost centers (primary accounts 7*110*, 7*115*, 7*120*, 7*130*), divided by total gross expenditures, net of recoveries, for the District (secondary financial accounts 3* - 9*, and 12*) assigned to all cost centers.

Administrative Expenses

Total Expenses

Information Services Expense as a % of Total Expense 2004 – 2005 Fiscal Year



Definition: The proportion of total expenses attributable to information systems.

Significance – Rationale and Notes for Interpretation

Administrative Expense as a proportion of total expense is a measure of efficiency. This is an indicator that examines the expenditures on information services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, for System Support divided by total gross expenditures, net of recoveries, for the District. MIS account codes used in the numerator include primary accounts 7* 1 25* and secondary financial accounts 3* - 9* and 12*. The denominator includes secondary financial accounts 3* - 9* and 12*.

Systems Support, gross expenditures, net of recoveries Total expenditures, net of recoveries





Definition: The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 39*) attributable to either Medical, Surgical, Combined Med/Surg, Pediatric and Palliative Care Inpatient Nursing Units (primary accounts 7*210*, 7*220*, 7*230*, 7*270, or 7*290*) divided by the number of inpatient days (secondary statistical account 403*).

Gross expenditures, net of recoveries (excluding medical fees)

Inpatient Days

Med/Surg Expense per Patient Day Medical / Surgical Nursing Units 2004- 2005 Fiscal Year



Definition: The average med/surg expense for an inpatient day is calculated by dividing the med/surg expense consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total medical and surgical supply expense (secondary financial accounts 460*) attributable to any Medical, Surgical, Combined Med/Surg, Pediatric or Palliative Care Nursing Inpatient Units (primary accounts 7*210*, 7*220*, 7*230*, 7*270, or 7*290*) divided by the number of inpatient days consumed by those functional centres (secondary statistical account 403*).

Medical / SurgicalExpenses

Inpatient Days
Drug Expense per Patient Day Medical / Surgical Inpatient Units 2004 – 2005 Fiscal Year



Definition: The average drug cost for an inpatient day is calculated by dividing the drug costs consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total Drug expense (secondary financial accounts 465*), attributable to any Medical, Surgical, Combined Med/Surg, or Pediatric Inpatient Nursing Units (primary accounts 7*210*, 7*220*, 7*230*, 7*270 or 7*290*) divided by the number of inpatient days consumed by those functional centres (secondary statistical account 403*).

Drug Costs Inpatient Days



Percentage Occupancy Medical Nursing Inpatient Units 2004 – 2005 Fiscal Year

Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days (secondary statistical account 403*), divided by the total number of bed days, staffed and in operation, (secondary statistical account 827*) attributable to Medical, Surgical, Combined Med/Surg, Pediatric and Palliative Care Inpatient Nursing Units (primary accounts 7*210*, 7*220*, 7*230*, 7* 270, or 7*290*) multiplied by 100 to yield a percentage.

Inpatient Days Bed Days Staffed and in Operation ×100

Direct Cost (Exc. Med Fees) Per Patient Day Obstetrical Nursing Inpatient Units 2004 – 2005 Fiscal Year



Definition: The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 39*) attributable to Obstetrical inpatient nursing units (primary accounts 7*250*) divided by the number of inpatient days (secondary statistical account 403*).

Gross expenditures, net of recoveries, (excluding medical fees)

Inpatient Days

Percentage Occupancy Obstetrical Nursing Inpatient Units 2004 – 2005 Fiscal Year



Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days in the maternal / newborn functional centre (secondary statistical account 40310* and 40340* respectively) divided by the total number of bed days, staffed and in operation, (secondary statistical account 827* and 828* respectively) attributable to the Obstetrical Inpatient Nursing Unit (primary accounts 7*250*), multiplied by 100 to yield a percentage.

Inpatient Days, eitherMaternal & Off Service or Newborn Bed Days Staffed and in Opeation, either Maternal & Off Service or Newborn



Direct Cost per Patient Day Intensive Care Units 2004 – 2005 Fiscal Year

Definition: The average direct cost of providing services to one ICU patient during one inpatient day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, excluding medical fees (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 39*) attributable to Intensive Care Inpatient Nursing Units (primary accounts 7*240*) divided by the number of inpatient days (secondary statistical account 403*).

Direct Costs, Net Recoveries (excluding medical fees) Inpatient Days

Med/Surg Expense per Patient Day Intensive Care Units 2004 – 2005 Fiscal Year



Definition: The average med/surg expense for an inpatient day. It is calculated by dividing the med/surg expense consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total Medical and Surgical supply expenses (secondary financial accounts 460*) attributable to Intensive Care Nursing Inpatient Units (primary accounts 7*240*) divided by the number of inpatient days (secondary statistical account 403*).

Medical / SurgicalExpenses

Inpatient Days



Drug Expense per Patient Day Intensive Care Units 2004 – 2005 Fiscal Year

Definition: The average drug cost for an inpatient day. It is calculated by dividing the drug costs consumed by an inpatient functional centre for a given period by the number of inpatient days of that consuming functional centre for the same period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total drug expenses (secondary financial accounts 465*), attributable to Intensive Care Inpatient Nursing Units (primary accounts 7*240*) divided by the number of inpatient days (secondary statistical account 403*).

Drug Costs Inpatient Days

Percentage Occupancy Med/Surg Intensive Care Units 2004 – 2005 Fiscal Year



Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days (secondary statistical account 403*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827*) attributable to the Intensive Care Inpatient Nursing Units (primary accounts 7*240*), multiplied by 100 to yield a percentage.

Inpatient Days Bed Days Staffed and in Operation ×100



Direct Cost (Exc. Med Fees) per OR Case (Includes Prosthesis Expense) 2004 – 2005 Fiscal Year

Note: Cumberland Regional and St. Martha's report Recovery Room expenses as part of their OR costs which over state their Direct Cost per OR Case. In addition, concerns still exist with the results for both Cumberland and Aberdeen, results appear over stated.

Definition: The average direct cost for a surgical visit. It is calculated by dividing their functional centre's direct operating expense by the total number of surgical visits to the Operating Room in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total direct costs, net of recoveries, excluding medical fees (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390) attributable to the Operating Room (primary accounts 7*260*) divided by the number of surgical visits (secondary statistical account 437*).

Direct Costs, net of recoveries (excluding medical fees) Surgical Visits



Percentage of Inpatient OR Cases to Total OR Cases 2004 – 2005 Fiscal Year

Definition: The percentage of inpatient Operating Room surgical cases to total Operating Room surgical cases.

Significance – Rationale and Notes for Interpretation

An indicator of resource and utilization use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient surgical visits (secondary statistical account 437 1*), divided by the total number of operating room surgical visits (secondary statistical account 437*) attributable to the Operating Rooms (primary accounts 7*260*), multiplied by 100 to yield a percentage.

Inpatient Surgical Visits Total Surgical Visits



Average Direct Cost (Exc. Med Fees) per ER Visit 2004 – 2005 Fiscal Year

Note: Concerns with data quality for Dartmouth General have been noted and documented with correct staffing levels.

Definition: The average direct cost for a visit to the Emergency Department. It is calculated by dividing their functional centre's direct operating expense by the total number of ER visits to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Emergency Services (primary accounts 71310*), divided by the total number of emergency visits (secondary statistical accounts 450*).

Gross expenditures, net of recoveries, (excluding Medical Fees) Total Emergency Visits



Average ER Visits per Calendar Day 2004 – 2005 Fiscal Year

Definition: The average number of visits per day to the Emergency Department. It is calculated by dividing the total number of visits by the number of calendar days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of resource use; used in budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of emergency room visits (secondary statistical accounts 450* attributable to primary accounts 71310*) divided by the number of days in a year (365).

Total Emergency Visits Calender Days



Ave. Daily Census – In patients in ER Hold Beds 2004 – 2005 Fiscal Year

Definition: The average number of patients, per calendar day, who are admitted to the health care organization but because there is no inpatient bed available must stay in an inpatient bed in the facility's Emergency Department.

Significance – Rationale and Notes for Interpretation

An indicator of resource use; used in budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days in the Emergency Room (secondary statistical accounts 403* attributable to primary accounts 71310*) divided by the number of days in a year (365).

Total inpatient days in the Emergency Department

Calender Days



Direct Cost per Day Surgery Visit 2004 – 2005 Fiscal Year

Note: Dartmouth General have not separated out costs and activity for Day Surgery, those expenses are reported in their Recovery Room, which overstate inpatient costs.

Definition: The average direct cost for a visit to Day Surgery. It is calculated by dividing their functional centre's direct operating expense by the total number of visits to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Day Surgery (primary accounts 7*34020 and 7*34025), divided by the total number of Day Surgery visits (secondary statistical accounts 450*).

Gross expenditures, net of recoveries, (Exc. Medical Fees)

Total Day Surgery Visits



Direct Cost per Endoscopy Visit 2004 – 2005 Fiscal Year

Note: Aberdeen Hospital has not reported endo visits to support the financial information. Dartmouth General has not identified costs and activity for Endoscopy, same are included in other Ambulatory Care functional centres.

Definition: The average direct cost for a visit to a Endoscopy Unit. It is calculated by dividing their functional centre's direct operating expense by the total number of visits to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Endoscopy (primary account 7*34055), divided by the total number of endoscopy visits (secondary statistical accounts 450*).

Gross expenditures, net of recoveries, (excluding Medical Fees) Total Endoscopy Visits



Direct Cost per Renal Dialysis Visit 2004 – 2005 Fiscal Year

Note: The IWK has only reported 4 visits for the fiscal year resulting in a Direct Cost per Renal Dialysis Visit of over \$100,000.00. This is a new program for Dartmouth General and includes start up costs only.

Definition: The average direct cost for a visit to Renal Dialysis. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Renal Dialysis (primary account 7*34085), divided by the total number of renal dialysis visits (secondary statistical accounts 450* and 451*).

Gross expenditures, net of recoveries, (excluding Medical Fees) Total Renal Dialysis Visits

Direct Cost per Medical Day Treatment Visit 2004 – 2005 Fiscal Year



Note: This is a medical day treatment service for a variety of clients that stay longer than 3 hours such as cancer and bone marrow clients.

Definition: The average direct cost for a visit to a Medical Day Treatment Service. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Medical Day Services (primary account 7*34010*), divided by the total number of visits (secondary statistical accounts 450* and 451*).

Gross expenditures, net of recoveries, (exc. Medical Fees)

Total Visits

Direct Cost per Visit Acute Ambulatory Care Specialty Clinics 2004 – 2005 Fiscal Year



Definition: The average direct cost for a visit to an acute care ambulatory care specialty clinic. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to ambulatory care specialty clinics (primary accounts 7*350*), divided by the total number of visits (secondary statistical accounts 450* and 451*). Note: Excluded from this indicator is Diabetes Education Centre.

Gross expenditures, net of recoveries (excluding Medical Fees)

Total Visits



Average Direct Cost (Exc. Med Fees) per In-House Workload Unit Laboratory Services 2004 2005 Fiscal Year

Definition: The average direct cost per in-house service recipient workload unit for Laboratory Services. It is calculated by dividing the functional centre's direct operating expenses (exc. Referred-out expense) by the total in-house service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: The total gross expenditures, net recoveries, and excluding referredout expense and medical fees (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390* and 8*) for Laboratory Services (primary accounts 71410*), divided by total Laboratory in-house workload units (secondary statistical accounts 115*).

Total Gross Expenditures, Net of Recoveries (Excluding Med Fees & RO Expense)In – House Workload Units

Ave. Workload Units per Unit-Producing Staff Laboratory Services 2004 2005 Fiscal Year



Definition: The average number of service recipient workload units generated by each unit-producing personnel full-time equivalent. It is calculated by dividing the service recipient workload units by the number of unit-producing personnel full-time FTEs.

Significance – Rationale and Notes for Interpretation

Indicates the average number of patient care units that can be provided by one FTE in a specific location. It is useful for budgeting and program planning.

Technical Specifications

Calculation: Total Lab in-house workload units (secondary statistical accounts 115*), divided by the number of estimated UPP FTEs in laboratory services. The total number of estimated UPP FTEs can be calculated by dividing the total number of UPP earned hours (secondary financial accounts 35*) in laboratory services by the "normal" number of UPP earned hours for lab services (the "normal" number of UPP earned hours for 2004/2005 was considered to be 1957.5 hours, based on the assumption that a normal UPP workday is 7.5 hours)

In–House Workload Units

UPP Earned Hours / Normal UPP Earned Hours



Direct Cost per Workload Unit Radiography Services 2004 – 2005 Fiscal Year

Definition: The average direct cost per service recipient workload unit for Radiography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Radiography Services (primary accounts 7*415 18) divided by the total number of Radiography workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Medical Fees Total Radiography Workload Units



Direct Cost per Workload Unit Mammography Services 2004 – 2005 Fiscal Year

This includes both Screening and Diagnostic Mammography Services.

Definition: The average direct cost per service recipient workload unit for Mammography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Mammography Services (primary accounts 7*41520*) divided by the total number of Mammography workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total Mammography ServiceWorkload Units

Direct Cost per Workload Unit Computed Tomography Services 2004 – 2005 Fiscal Year



Note: Facilities which have multi-slicers quite often report a UPP Worked Productivity Index in excess of 100%.

Definition: The average direct cost per service recipient workload unit for Computed Tomography Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Computed Tomography (primary accounts 7*41525*) divided by the total number of CT workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total CT Workload Units



Direct Cost per Workload Unit Ultrasound Services 2004 – 2005 Fiscal Year

Definition: The average direct cost per service recipient workload unit for Ultrasound Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Ultrasound (primary accounts 7*41530*) divided by the total number of Ultrasound workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total Ultrasound Workload Units

Direct Cost per Workload Unit Nuclear Medicine Services 2004 – 2005 Fiscal Year



Definition: The average direct cost per service recipient workload unit for Nuclear Medicine Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Nuclear Medicine (primary accounts 7*41540*) divided by the total number of Nuclear Medicine workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total Nuclear Medicine Workload Units

Direct Cost per Workload Unit MRI Services 2004 – 2005 Fiscal Year



Definition: The average direct cost per service recipient workload unit for MRI Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for MRI Services (primary accounts 7*41570*) divided by the total number of MRI workload units (secondary statistical accounts 107*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total MRI Workload Units

Direct Cost per Workload Unit Physiotherapy Services 2004 – 2005 Fiscal Year



Definition: The average direct cost per service recipient workload unit for Physiotherapy Services. It is calculated by dividing the functional centre's direct operating expenses by the total service recipient workload units generated by the functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Physiotherapy Services (primary accounts 7*450*) divided by the total number of Physiotherapy workload units (secondary statistical accounts 102*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total Physio Workload Units

Unit-Producing Staff Worked Productivity Physiotherapy Services 2004 – 2005 Fiscal Year



Definition: The average number of service recipient workload units produced per unit-producing personnel worked hour or purchased hour. It is calculated by dividing the service recipient workload units by the worked and purchased hours of the unit-producing personnel in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: The total Physiotherapy service recipient workload units (secondary statistical accounts 102*) divided by 60 (to convert minutes to hours) divided by UPP worked & purchased hours (secondary statistical accounts 35*10 and 35*90)

Total Service Recipient Workload Units / 60Total Worked and Purchased Service Hours



Direct Cost per Workload Unit Occupational Therapy 2004 –2005 Fiscal Year

Definition: The average direct cost per in-house service recipient workload unit for Occupational Therapy. It is calculated by dividing the functional centre's direct operating expense (less the contracted-out service expense, if applicable) by the in-house service recipient workload units generated by that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: Gross expenditures, net of recoveries, exc. Med Fees (secondary financial accounts 3* - 9*; 12*; excluding secondary financial accounts 390*) for Physiotherapy Services (primary accounts 7*455*) divided by the total number of OT workload units (secondary statistical accounts 102*).

Gross Expenditures, Net of Recoveries, Exc. Med Fees Total OT Workload Units

Unit-Producing Staff Worked Productivity Occupational Therapy Services 2004 – 2005 Fiscal Year



Definition: The average number of service recipient workload units produced per unit-producing personnel worked hour or purchased hour. It is calculated by dividing the service recipient workload units by the worked and purchased hours of the unit-producing personnel in a given period.

Significance – Rationale and Notes for Interpretation

Used for budgeting, program planning, and the evaluation of services.

Technical Specifications

Calculation: The total OT service recipient workload units (secondary statistical accounts 102*) divided by 60 (to convert minutes to hours) divided by UPP worked & purchased hours (secondary statistical accounts 35*10 and 35*90)

Total Service Recipient Workload Units / 60Total Worked and Purchased Service Hours



Direct Cost per Patient Day Addiction Inpatient Services 2004 – 2005 Fiscal Year

Definition: The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Addiction Services Inpatient Nursing Units (primary accounts 7*275 40) divided by the number of inpatient days (secondary statistical account 403*).

Gross Expenditures, Net of Recoveries (excluding medical fees) Inpatient Days



Addiction Services Inpatient Units 2004 – 2005 Fiscal Year

Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days (secondary statistical account 403*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827*) attributable to Addictions Services Inpatient Nursing units (primary accounts 7*27540*), multiplied by 100 to yield a percentage.

Inpatient Days Bed Days Staffed and in Operation

Direct Cost per Visit Addiction Community Based Services 2004 – 2005 Fiscal Year



Definition: The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Addiction Community Based Outpatient Services (primary account 7*550 80), divided by the total number of visits (secondary statistical accounts 450* and 451*).

Direct Cost per Patient Day Mental Health Psychiatric Inpatient Units 2004 – 2005 Fiscal Year



Definition: The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3* - 9*; and 12*; excluding secondary financial accounts 390*) attributable to Psychiatric Inpatient Nursing Units (primary accounts 7*275 20*) divided by the number of inpatient days (secondary statistical account 403*).

Gross Expenditures, Net of Recoveries (excluding medical fees) Inpatient Days

Percentage Occupancy Mental Health Psychiatric Inpatients Units 2004 – 2005 Fiscal Year



Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days (secondary statistical account 403*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827*) attributable to the Psychiatric Inpatient Nursing Units (primary accounts 7*275 20*), multiplied by 100 to yield a percentage.

Inpatient Days Bed Days Staffed and in Opeation ×100

Direct Cost per Patient Day Other Mental Health Inpatient Units 2004 – 2005 Fiscal Year



Definition: The average direct cost of providing services to one inpatient/resident during one inpatient/resident day. It is calculated by dividing the functional centre's direct operating expenses by the number of inpatient/resident days in a given period.

Significance – Rationale and Notes for Interpretation

An indicator of complexity, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries, (excluding medical fees) (secondary accounts 3* - 9*; 12*; and excluding secondary financial accounts 390*) attributable to Psychiatry cost centre (primary accounts 7*275 60, 7*275 70, 7*275 80, 7*275 90*) divided by the number of inpatient days (secondary statistical account 403*).

Gross Expenditures, Net of Recoveries (excluding medical fees) Inpatient Days
Percentage Occupancy Other Mental Health Inpatient Units 2004 – 2005 Fiscal Year



Definition: The percentage of beds which are available and staffed for inpatient accommodation and which are occupied by a service recipient.

Significance – Rationale and Notes for Interpretation

An indicator of resource use, used for budgeting, planning, and evaluation.

Technical Specifications

Calculation: The total number of inpatient days (secondary statistical account 403*), divided by the total number of bed days, staffed and in operation (secondary statistical account 827*) attributable to the Psychiatry Inpatient Nursing Units (primary accounts 7*275 60*, 7*275 70*, 7*275 80* and 7*275 90*), multiplied by 100 to yield a percentage.

 $\frac{Inpatient Days}{Bed Days Staffed and in Operation} \times 100$

Source: NS DoH, MIS Database

Direct Cost per Visit MHS Child & Youth Outpatient Services 2004 – 2005 Fiscal Year



Definition: The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3* - 9*; 12*; and excluding secondary financial accounts 390*) attributable to the MHS Child & Youth Outpatient Services (primary account 7*3507025), divided by the total number of visits, both face-to-face and telephone (secondary statistical accounts 450* and 451*).

Direct Cost, Net of Recovery (excluding Medical Fees) Total Visits

Source: NS DoH, MIS Database

Direct Cost per MHS Visit Adult Outpatient Services 2004 – 2005 Fiscal Year



Definition: The average direct cost for a visit to a functional centre. It is calculated by dividing their functional centre's direct operating expense by the total number of visits (face-to-face and telephone) to that functional centre in a given period.

Significance – Rationale and Notes for Interpretation

Used for program planning, evaluating differences in acuity, and monitoring activity based budget projections.

Technical Specifications

Calculation: Total gross expenditures, net of recoveries (excluding medical fees) (secondary financial accounts 3*- 9*; 12*; and excluding secondary financial accounts 390*) attributable to the MHS Adult Outpatient Services (primary account 7*35080*), divided by the total number of visits, both face-to-face and telephone (secondary statistical accounts 450* and 451*).

Gross Expenditures, Net of Recoveries (excluding Medical Fees) Total Visits

Source: NS DoH, MIS Database

How Did We Do?

Your comments and feedback about the "2004-2005 Annual Statistical Report" are valuable to us. Please complete this questionnaire and send it to:

2004-2005 Annual Statistical Report Feedback

Nova Scotia Department of Health Information Analysis & Reporting 1690 Hollis Street, 10th Floor, PO Box 488 Halifax, NS B3J 2R8 OR Fax: (902) 424 0506 OR Email: boydc@gov.ns.ca

Instructions

For each question, please put an X beside the most appropriate response. There are no right or wrong answers; we are only interested in your opinions. Individual responses will be kept confidential.

Overall Satisfaction with the Report

How did you find out about "The 2004-2005 Annual Statistical Report"

- News Media
- Government Alert
- Internet search
- Colleague / Peer
- Other, please specify _____

To what extent have you read through the report?

- I have read through the entire report
- I have read certain chapters and browsed through the entire report
- I have browsed through the entire report
- I have not read any part of the report in any detail

How satisfied are you with the following aspects of the report?

		J		
a. Clarity	🚺 Excellent	📓 Good	🚺 Fair	🞑 Poor
b. Format	🚺 Excellent	🔝 Good	🗾 Fair	🔝 Poor
c. Use of Figures	🔯 Excellent	🗔 Good	🔍 Fair	🔍 Poor
d. Graphs	🔯 Excellent	📓 Good	🔍 Fair	🔝 Poor
e. Level of Detail	🔯 Excellent	🔝 Good	💷 Fair	🞑 Poor
f. Length of	🔯 Excellent	📓 Good	🔍 Fair	💐 Poor
Report				

Usefulness of the Report

Please indicate how useful you found the following sections of the report.

–	(11)	N	(11)	(FT)
Section 1	💷 Very Useful	💷 Somewhat	💷 Not useful	💵 Did not read
Section 2	Very Useful	💷 Somewhat	Not useful	💐 Did not read
Section 3	🚺 Very Useful	🗾 Somewhat	📓 Not useful	💐 Did not read
Section 4	🗾 Very Useful	🗾 Somewhat	🚺 Not useful	💐 Did not read
Section 5	🔯 Very Useful	💷 Somewhat	톏 Not useful	💐 Did not read
Section 6	🔯 Very Useful	💷 Somewhat	😺 Not useful	💐 Did not read
Section 7	🔯 Very Useful	💷 Somewhat	🔊 Not useful	💐 Did not read

Other Comments

How do you plan to use the information in this report?

What did you find most useful about this report?

What did you find least useful about this report?

Is there anything you would like to see included in future reports?

How could we improve this report for future releases?

Have you read other provinces reports? If so, how did we compare?

Reader Information

Where do you live?

- Nova Scotia
- Prince Edward Island
- Quebec
- Manitoba
- Alberta
- Northwest Territories
- 🚺 Nunavut

What is your main position or role?

- General Public
 Health Services / M
- Health Services / Manager Administrator
- Board Member
- Elected Official
- Government employee
- Student

Newfoundland

- New Brunswick
- 🚺 Ontario
- Saskatchewan
- British Columbia
- 🚺 Yukon
- Outside Canada (please

specify)

- Health Care Provider
- Policy / Planning / Decision Support Analyst
- Educator
- Researcher
- Policy Maker
- Other (specify)

Thank you for completing and returning this questionnaire